AUD-D2A

User Manual

Version 1.2

Table of Contents

1 INTRODUCTION 4

1.1 PURPOSE 4
1.2 PRESENTATION 4

2 AUD-D2A PRESENTATION 5

2.1 OVERVIEW 5
2.2 AUD-D2A FRONT PANEL 5
2.3 AUD-D2A REAR PANEL 5

3 REAR PANEL CONNECTIONS 7

3.1 AES/EBU DIGITAL AUDIO IN DB25-F CONNECTOR PIN-OUT 7
3.2 ANALOG AUDIO OUT DB25-F CONNECTOR PIN-OUT 8

4 AUD-D2A CONNECTIONS TO DCP-2000 AND CINEMA ANALOG AUDIO PROCESSOR 9

4.1 CONNECTIONS SCHEMATIC 9
4.2 CONNECTIONS PROCEDURE 10
4.2.1 Step 1: Connecting the AUD-D2A Analog Audio 10
4.2.2 Step 2: Connecting the AUD-D2A Digital Audio 11
4.2.3 Step 3: Connecting the AUD-D2A Power Cable 11

5 DOCUMENT REVISION HISTORY 12

Software License Agreement

The software license agreement can be found at the following location:

http://www.doremicinema.com/warranties.html

Hardware Warranty

The hardware warranty can be found at the following location:

http://www.doremicinema.com/warranties.html

1 Introduction

1.1 Purpose

This document presents the AUD-D2A digital to analog audio converter. It also provides explanation concerning the AUD-D2A connections between a DCP-2000 Digital Cinema Server and an external Cinema Analog Audio Processor.

1.2 Presentation

This document is structured according to the following sections:

- **Section 1**: Introduction – Overall presentation of the document
- **Section 2**: AUD-D2A Presentation – Usage and characteristics of the AUD-D2A product
- **Section 3**: Rear Panel Connections – Presentation of the AUD-D2A rear panel connections
- **Section 4**: AUD-D2A Connections to DCP-2000 and Cinema Analog Audio Processor – Description of the connection steps
- **Section 5**: Document Revision History

2 AUD-D2A Presentation

2.1 Overview

AUD-D2A is an 8 channels digital to analog audio converter. It has been designed to interface the DCP-2000 (Digital Cinema Server) digital audio output to Analog Audio Processors for theatres without a Digital Cinema Audio Processor.

It accepts digital audio format signal (AES/EBU) as an input and outputs the same signal converted into analog audio format.

The product ships with **un-balanced output ONLY**.

The unit has been designed to be rack-mounted. Its dimension is 1RU. It can be mounted either close to the DCP-2000 or close to the Cinema Analog Audio Processor.

2.2 AUD-D2A Front Panel

Its front panel has 2 LEDs:

- one green LED showing when the unit is ON,
- one yellow LED showing the audio activity.

Figure 1: AUD-D2A Front Panel

2.3 AUD-D2A Rear Panel

The back panel allows you how to connect the unit to the power outlet (100-240VAC / 50-60Hz). It has a Power switch for turning the unit ON or OFF.

On the back panel, two DB25-F connectors are available:

- one for the Digital Audio Input,
- one for the Analog Audio Output.

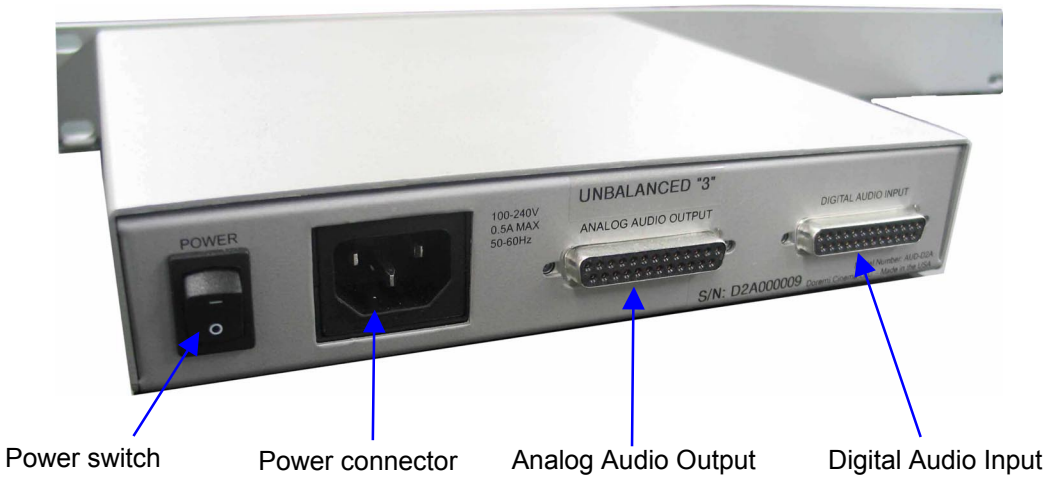

Figure 2: AUD-D2A Rear Panel

3 Rear Panel Connections

3.1 AES/EBU Digital Audio In DB25-F Connector Pin-Out

The digital Audio Input connector pin-out complies with the AES/EBU standard and is illustrated below:

Pin #	Signal Description	Pin #	Signal Description
1	no connection	14	no connection
2	no connection	15	no connection
3	no connection	16	no connection
4	no connection	17	no connection
5	no connection	18	no connection
6	no connection	19	no connection
7	Ch 7 & 8 plus	20	Ch 7 & 8 minus
8	Ch 7 & 8 ground	21	Ch 5 & 6 plus
9	Ch 5 & 6 minus	22	Ch 5 & 6 ground
10	Ch 3 & 4 plus	23	Ch 3 & 4 minus
11	Ch 3 & 4 ground	24	Ch 1 & 2 plus
12	Ch 1 & 2 minus	25	Ch 1 & 2 ground
13	no connection		

DCI Channel Map:

Channel 1: L (screen – left)
Channel 2: R (screen – right)
Channel 3: C (screen – center)
Channel 4: LFE (screen – low frequency effects subwoofer)
Channel 5: Ls (surround – left wall)
Channel 6: Rs (surround – right wall)
Channel 7: Lc (screen – mid left to center)
Channel 8: Rc (screen – mid right to center)

The cable that is used to interconnect the DCP-2000 to the AUD-D2A is a one to one pin compatible.

A picture of the DB25-F input connector is provided below:

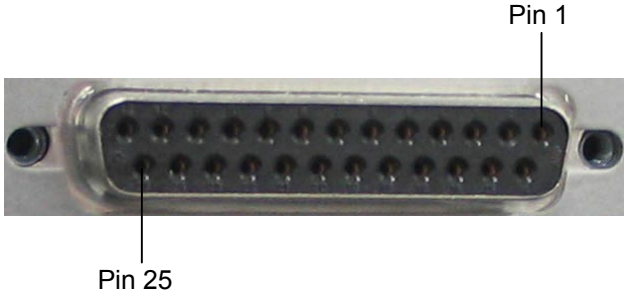

Figure 3: AUD-D2A Digital Audio Input Connector (DB25-F)

3.2 Analog Audio Out DB25-F Connector Pin-Out

The DB25-F connector for the analog audio output has the following pin-out (un-balanced configuration only):

Pin #	Signal Description	Pin #	Signal Description
1	Ch 8 plus	14	no connection
2	Ch 8 ground	15	Ch 7 plus
3	no connection	16	Ch 7 ground
4	Ch 6 plus	17	no connection
5	Ch 6 ground	18	Ch 5 plus
6	no connection	19	Ch 5 ground
7	Ch 4 plus	20	no connection
8	Ch 4 ground	21	Ch 3 plus
9	no connection	22	Ch 3 ground
10	Ch 2 plus	23	no connection
11	Ch 2 ground	24	Ch 1 plus
12	no connection	25	Ch 1 ground
13	no connection		

DCI Channel Map:

Channel 1: L (screen – left)
Channel 2: R (screen – right)
Channel 3: C (screen – center)
Channel 4: LFE (screen – low frequency effects subwoofer)
Channel 5: Ls (surround – left wall)
Channel 6: Rs (surround – right wall)
Channel 7: Lc (screen – mid left to center)
Channel 8: Rc (screen – mid right to center)

A picture of the DB25-F output connector is provided below:

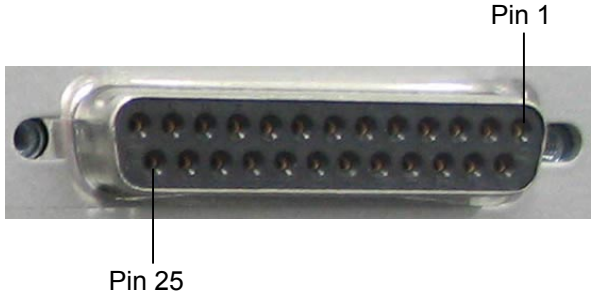

Figure 4: AUD-D2A Analog Audio Output Connector (DB25-F)

4 AUD-D2A Connections to DCP-2000 and Cinema Analog Audio Processor

This section presents the overall schematic of the AUD-D2A connections between a DCP-2000 and an external Cinema Analog Audio Processor.

4.1 Connections Schematic

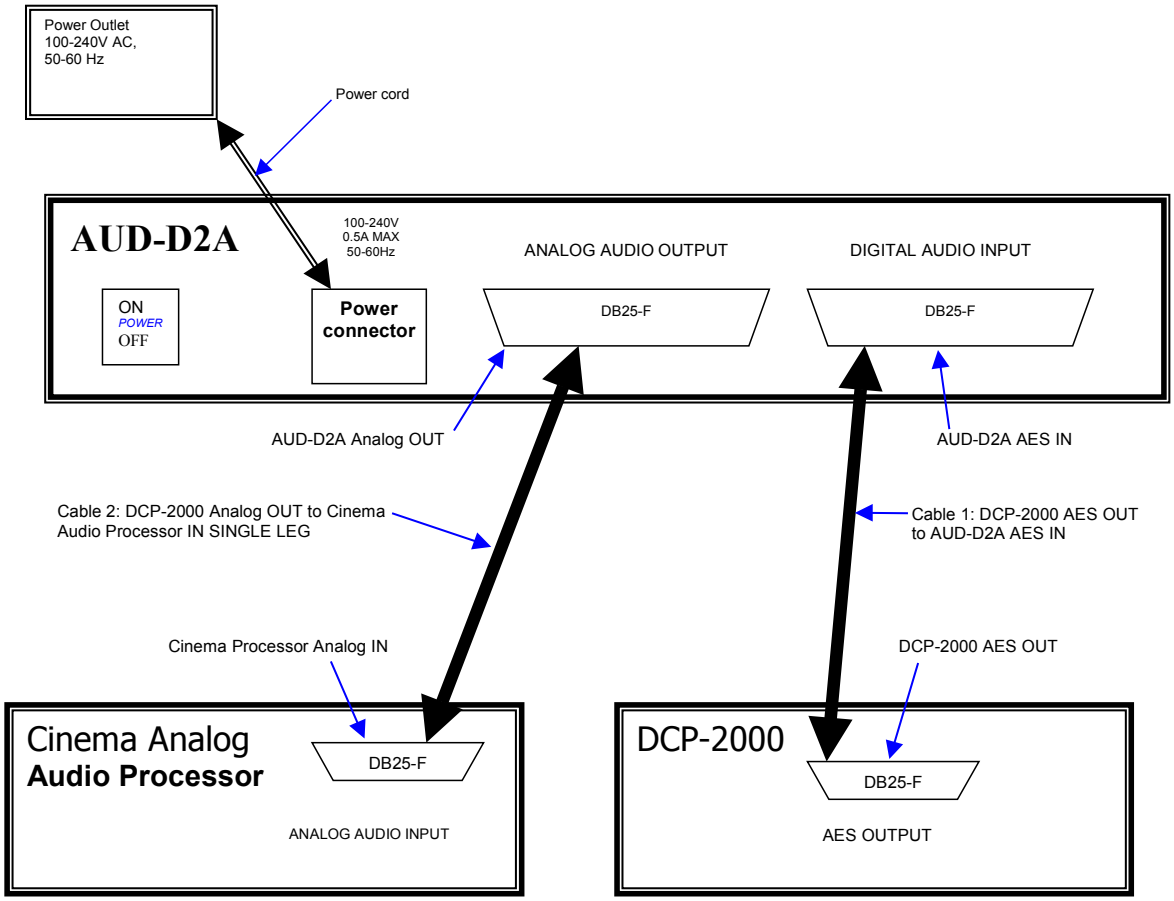

Figure 5: AUD-D2A to DCP-2000 Connections Schematic

4.2 Connections Procedure

This section presents the procedure to follow, step by step, to connect the AUD-D2A between a DCP-2000 and an external Cinema Analog Audio Processor.

To connect the AUD-D2A between a DCP-2000 and an external Cinema Analog audio processor, follow the steps presented in the paragraphs below.

4.2.1 Step 1: Connecting the AUD-D2A Analog Audio

Connect the AUD-D2A to the Cinema processor using the DCP-2000 Analog Out cable as presented below:

"DCP-2000 Analog Out to Cinema Processor Analog In Single LEG" Cable
POWER
UNBALANCED "3"
ANALOG AUDIO OUTPUT
DIGITAL AUDIO INPUT

Figure 6: AUD-D2A Rear Panel – DCP-2000 Analog Cable Connection

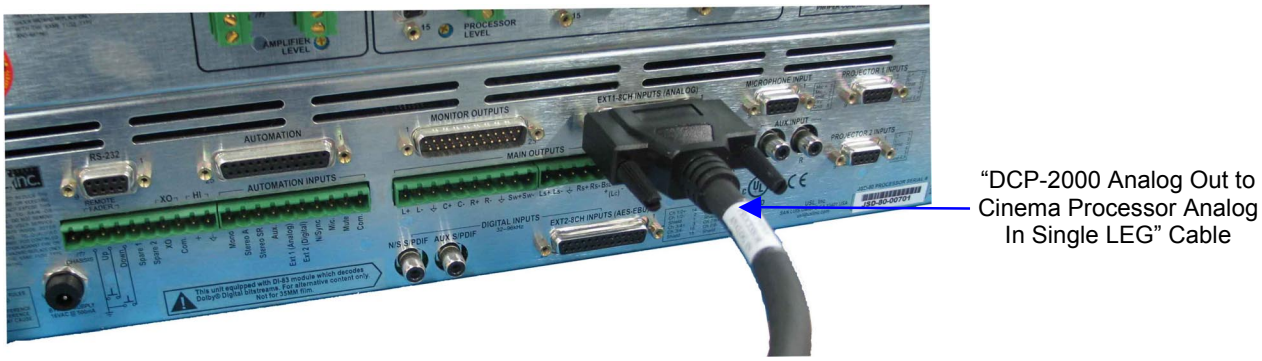

Figure 7: Cinema Processor – DCP-2000 Analog Cable Connection

4.2.2 Step 2: Connecting the AUD-D2A Digital Audio

Connect the DCP-2000 to the AUD-D2A using the DCP-2000 AES Out Cable as presented below:

Figure 8: DCP-2000 Rear Panel – AES Cable Connection

Figure 9: AUD-D2A Rear Panel – AES Cable Connection

4.2.3 Step 3: Connecting the AUD-D2A Power Cable

Plug the power cable into the AUD-D2A and power it ON by putting the power switch in the ON position as presented in **Figure 9** above.

The power LED of the front panel should light ON (green LED). If any activity is detected, the "active LED" (yellow LED) should be lighted – see **Figure 1**.

5 Document Revision History

Date	Version	Description
03/07/2008	1.0	First version.
08/07/2008	1.1	Audio output revised for default un-balanced configuration
07/15/2010	1.2	Balanced output option not supported anymore